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5 May 1998

# AGREEMENT

**CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF THESE PRESCRIPTIONS */**

(Revision 2, including the amendments entered into force on 16 October 1995)

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**Addendum 51: Regulation No. 52**

**Revision 1 - Amendment 1**

Supplement 1 to the 01 series of amendments - Date of entry into force: 3 January 1998

**UNIFORM PROVISIONS CONCERNING THE CONSTRUCTION OF SMALL CAPACITY PUBLIC SERVICE VEHICLES**

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**UNITED NATIONS**

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*/ Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

Insert a new paragraph 2.1.3., to read:

"2.1.3. "Low floor vehicle" means a vehicle in which at least 35 per cent of the area available for standing passengers forms a single area without steps, reached through at least one service door by a single step from the ground."

Paragraph 2.15., amend to read:

"2.15. "Access passage" means the space extending inwards into the vehicle from the service door up to the outermost edge of the upper step (edge of the gangway). Where there is no step at the door, the space to be considered as access passage shall be that which is measured according to paragraph 5.7.1.1. up to a distance of 30 cm from the starting position of the inner face of the dual panel."

Paragraph 2.17., amend to read:

"2.17. "Unladen kerb mass" (MK) (kg) means the mass of the vehicle in running order, unoccupied and unladen but with the addition of 75 kg for the mass of the driver, the mass of fuel corresponding to 90 per cent of the capacity of the fuel tank specified by the manufacturer, and the masses of coolant, lubricant, tools and spare wheel, if any;

2.17.1. "Unladen mass" (MV) (kg) means the unladen kerb mass (MK) (kg) of the vehicle as defined in paragraph 2.17., with the addition of 75 kg for the mass of the crew member corresponding to the seat, if any, specially assigned to this crew member as described in paragraph 5.7.1.8. The vehicle shall be complete with 90 per cent of the capacity of all additional liquid tanks (e.g. fuel for combustion heaters, screen washers, etc.). Where facilities such as a kitchen or toilet are fitted, the fresh water tanks shall be full and the waste tanks empty."

Paragraph 2.18., amend to read:

"2.18. "Technically permissible maximum mass" means the maximum mass declared by the manufacturer of the vehicle. (This mass may be greater than the "permissible maximum mass" to be prescribed by national administrations)."

Insert a new paragraph 2.19., to read:

"2.19. "Technically permissible maximum axle mass" means that part of the technically permissible maximum mass of the vehicle, declared by the manufacturer, which results in the vertical force at the road surface in the contact area on the wheel/wheels of an axle. This mass may be greater than the maximum permissible axle mass authorized by national administrations.

The sum of all technically permissible maximum axle masses of the vehicle may be greater than the technically permissible maximum mass of that vehicle."

Paragraphs 2.19. to 2.23. (former), renumber as paragraphs 2.20. to 2.24.

Insert new paragraphs 2.25. and 2.26., to read:

"2.25. Unless otherwise stated, all measurements shall be made when the vehicle is at its unladen kerb mass (MK) (kg) and it is standing on a smooth and horizontal ground surface. If a kneeling system is fitted to the vehicle, it shall not be in operation.

2.26. Wherever there is a requirement in this Regulation for a surface in the vehicle to be horizontal or at a specific angle when the vehicle is at its unladen kerb mass (MK) (kg), in the case of a vehicle with mechanical suspension, the surface may exceed this slope or possess a slope when the vehicle is at its unladen kerb mass (MK) (kg), provided that this requirement is met when the vehicle is in the loading condition declared by the manufacturer. If a kneeling system is fitted to the vehicle, it shall not be in operation."

Paragraph 3.2.3.3., amend to read:

"3.2.3.3. the unladen mass of the vehicle (MV) (kg);"

Paragraph 3.2.9., amend to read:

"3.2.9. the number of seating places intended for use by passengers and crew (if any). Sleeping places and other accommodations which are intended to be temporarily used instead of a seating place shall not count as seating places."

Paragraph 4.4.1., footnote 2/, amend to read:

"2/ ..... 30 (vacant), 31 for Bosnia and Herzegovina, 32-36 (vacant) ....."

Paragraph 5.1.3., amend to read:

"5.1.3. Unladen, for the purpose of this paragraph (5.1.) and paragraph 5.3., means the vehicle in the condition described in paragraph 2.17.1."

Paragraph 5.2.2.2., amend to read:

"5.2.2.2. the area of all parts which are not accessible to a standing passenger when all the seats are occupied, with the exception of folding seats;"

Paragraph 5.2.2.5., amend to read:

"5.2.2.5. the area 30 cm in front of all seats other than folding seats;"

Paragraph 5.2.2.6., amend to read:

"5.2.2.6. any surface not being excluded by the provisions in paragraphs 5.2.2.1. to 5.2.2.5. above, on which it is not possible to place a rectangle of 400 mm x 300 mm;"

Paragraph 5.2.2.7 should be deleted.

Paragraphs 5.3. to 5.3.3., amend to read:

"5.3. Passenger capacity

5.3.1. There shall be on the vehicle a number ($P_s$) of seating places (see para. 3.2.9. above), other than folding seats, which conform to the requirements of paragraph 5.7.8. For a vehicle of Class A the number $P_s$ shall be at least equal to the number of square metres of floor available for passengers and crew (if any) ($S_o$) rounded down to the nearest whole number.

5.3.2. The total number N of seating and standing places in vehicles shall be calculated such that both of the following conditions are fulfilled:

$$N \leq P_s + \frac{S_1}{S_{sp}}$$

and

$$N \leq \frac{MT - MV - L \cdot V - R \cdot VX}{Q}$$

where:

$P_s$ = Number of seating places (see paragraphs 3.2.9. and 5.3.1.);

$S_1$ = Surface area ($m^2$) (see paragraph 5.2.2.) available for standing passengers;

$S_{sp}$ = Area assumed for one standing passenger ($m^2$/standing passenger) (see paragraph 5.3.2.2.);

MT = Technically permissible maximum mass (kg) (see paragraph 2.18.);

MV = Unladen mass (kg) as defined in paragraph 2.17.1.;

L = Specific load of baggage ($kg/m^3$) in the baggage compartment(s);

V = Total volume ($m^3$) of the baggage compartments (see paragraph 3.2.5.);

R = Specific mass of baggage in the roof area ($kg/m^2$);

VX = Total surface area ($m^2$) available for baggage to be carried on the roof (see paragraph 3.2.6.);

Q = Mass (kg) assumed for the load on each passenger seating and standing place, if any (see paragraph 5.3.2.2.).

5.3.2.1. In vehicles of Class B, $S_1 = 0$.

5.3.2.2. The values of Q, $S_{sp}$, L and R for both classes of vehicles are as follows:

| Class | Q (kg) | $S_{sp}$ ($m^2$/standing passenger) | L ($kg/m^3$) | R ($kg/m^2$) |
|---|---|---|---|---|
| A | 68 | 0,125 | 100 | 75 |
| B | 71 */ | (no standing passengers) | 100 | 75 |

*/ Including 3 kg of hand baggage."

5.3.2.3. If a vehicle of Class B is approved as a Class A vehicle, the mass of baggage carried in the baggage compartments accessible only from outside the vehicle is not taken into account.

5.3.3. When calculated according to paragraph 5.3.2., the mass on each axle of the vehicle shall not exceed the values of their respective technically permissible maximum values."

Insert a new paragraph 5.3.4., to read:

"5.3.4. The vehicle shall be clearly marked in a manner visible on the inside in the vicinity of the front door in letters or pictograms not less than 15 mm high and numbers not less than 25 mm high, with

5.3.4.1. the number of seating places for which the vehicle is designed ($P_s$);

5.3.4.2. the total number of passengers for which the vehicle is designed (N);

5.3.4.3. the number of wheelchairs, if any, for which the vehicle is designed.

Paragraph 5.7.8., amend to read:

"5.7.8. Passenger seats (including folding seats) and space for seated passengers"

Insert a new paragraph 5.7.1.11., to read:

"5.7.1.11. Gangways and access passages shall be covered with an anti-slip material."

Annex 1,

Item 7, amend to read:

"7. Unladen mass (MV): . . . . . (kg)"

Items 10. to 11.3., replace by the following text:

| | | |
|---|---|---|
| "10. | Calculated values: | |
| 10.1. | Number of seating and standing places according to paragraph 5.3.2. of this Regulation: | |
| 10.1.1. | Total ($N = P_s + P_{st}$): . . . . . | |
| 10.1.2. | Seating places ($P_s$): . . . . . | |
| 10.1.3. | Standing places ($P_{st}$): . . . . . | |
| 11. | Masses according to paragraph 5.3.3. of this Regulation: | |
| 11.1. | Total vehicle mass: . . . . . | (kg) |
| 11.2. | First axle mass: . . . . . | (kg) |
| 11.3. | Second axle mass: . . . . . | (kg) |
| 11.4. | Third axle mass (if any): . . . . . | (kg)" |